LEIDEN UNIVERSITY MEDICAL CENTER

Blades for the Shark cluster

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Introduction

Clusters

Figure 1: Dell M610 blade server.

Introduction

Resequencing

Exome:

- Only look at the genes.
- Will not detect everything.

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- Analyse everything.

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type	desktop	cluster
exome	4 days	5 hours
genome	one year	3 days

Table 1: Gain of using a cluster.

Introduction

Large projects

Genome of the Netherlands:

- 750 full genomes.

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Centre for Genome Diagnostics:

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Geuvadis:

- QC for 667 samples done in two days.

These types of analysis would be impossible without our cluster.

Cluster setup

Shark cluster

Some figures:

- 29 nodes.
- 368 cores.
- 120 users.

Cluster setup

Shark cluster

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- 29 nodes.
- 368 cores.
- 120 users.

Funded by four departements:

- Molecular Epidemiology.
- Clinical Genetics.
- Human Genetics.
- Parasitology.

Cluster setup

Storage

Funded by the same four departments.

Share	Size	Usage	Free	Use (%)
huid-derl	1.0T	576G	449G	57%
system	2.0T	1.2T	872G	58%
BMS	15T	0	15T	0%
MolEpi	65T	58T	7.2T	89%
UCSC-bam	1.0T	711G	314G	70%
SASC	520T	411T	105T	80%
LGTC	105T	86T	20T	82%
HumGen	37T	32T	4.9T	87%
KG	27T	16T	12T	59%
GoNL	140T	119T	22T	85%

Table 2: Usage of the storage.

Expansion

Blades

Figure 2: Dell M610 blade.

Specifications:

- 128G memory.
- 16 cores.
  - 64 bits.
  - 2.20GHz.

Expansion

Summary

Gain for the departement:

- No need for high-end desktop machines.
- All hardware is constantly used.
- Makes it easy to cooperate.

Michel Villerius

Expansion

Summary

Gain for the departement:

- No need for high-end desktop machines.
- All hardware is constantly used.
- Makes it easy to cooperate.

Everyone can use this cluster.

- We offer an introduction course.
- The overcapacity is available for everyone.
- If you need more computing power, donate a node.
- You can buy space on the storage.

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Questions?

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